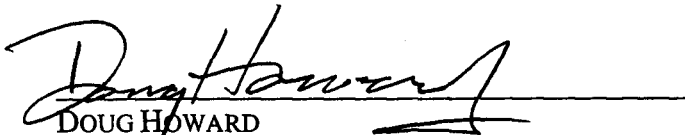


**WASTEWATER-LAND APPLICATION PERMIT
LA-000048-02**

The City of Richfield, P.O. Box 97, Richfield, Idaho 83349, Lincoln County IS
HEREBY AUTHORIZED TO CONSTRUCT, INSTALL AND OPERATE A
WASTEWATER-LAND APPLICATION TREATMENT SYSTEM IN
ACCORDANCE WITH THE WASTEWATER-LAND APPLICATION RULES
(IDAPA 58.01.17) AND THE WATER QUALITY STANDARDS AND
WASTEWATER TREATMENT REQUIREMENTS (IDAPA 58.01.02), THE
GROUND WATER QUALITY RULE (IDAPA 58.01.11), AND
ACCOMPANYING PERMIT APPENDICES AND REFERENCE
DOCUMENTS. THIS PERMIT IS APPLICABLE TO CITY OF RICHFIELD
PROPERTIES LOCATED APPROXIMATELY ONE QUARTER MILE
SOUTHWEST OF THE CITY OF RICHFIELD. THIS PERMIT IS EFFECTIVE
FROM THE DATE OF SIGNATURE AND EXPIRES ON

5/30/07


DOUG HOWARD
TWIN FALLS REGIONAL ADMINISTRATOR
IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

5/30/02
DATE

DEPARTMENT OF ENVIRONMENTAL QUALITY
601 Pole Line Road, Suite 2
Twin Falls, Idaho 83301
(208) 736-2190

POSTING ON SITE RECOMMENDED

B. Permit Contents, Appendices, Reference Documents

<u>Section</u>	<u>Page</u>
A. Permit Certificate	1
B. Table of Contents	2
C. Facility Information	3
D. Site Specific Permit Conditions	4
E. Monitoring Requirements	5-6
F. Compliance Schedule For Required Activities	7
G. Reporting Requirements	8-9
H. Standard Permit Conditions: Procedures and Reporting	10-11
I. Standard Permit Conditions: Modifications, Violation and Revocation	12

Appendices

1. Site Maps
2. Environmental Monitoring Serial Numbers

Reference Documents to be Incorporated into Permit

1. Operation and Maintenance Manual, with the following sections included
 - Groundwater Monitoring and Sample Handling Standard Operating Procedures
 - Odor Management Plan
 - Best Management Practices, for prevention of discharge to Little Wood River

The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater-Land Application Permit LA-000001-02 and are enforceable as such. This permit does not relieve the City of Richfield, hereafter referred to as the permittee, from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

LA-000048-02	City of Richfield	Permit Date May 30, 2002	Page 2 of 14
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C. Facility Information

Legal Name of Permittee	City of Richfield
Type of Wastewater	Municipal Wastewater
Method of Treatment	Aerated lagoon, polishing lagoon, chlorine disinfection, slow rate land application
Type of Facility	POTW
Facility Location	Two lagoons and land application site located about one quarter mile SW of the City of Richfield
Legal Location	Township 4S, Range 19 East, Section 26
County	Lincoln
USGS Quad	Richfield
Soils on Site	Primarily McCain silt loam
Depth to Ground Water	Depth to first water aquifer ----- see Compliance Activity CA-048-03 Depth to regional aquifer ----- 340 to 350 feet
Beneficial Uses of Ground Water	Agriculture, industrial, domestic
Nearest Surface Water	Little Wood River located 30 feet South of land application site
Beneficial Uses of Surface Water	Agriculture, Recreation, Aquatic Life, Cold Water Aquatic Life, Wildlife Habitats
Responsible Official Mailing Address Phone	Charles Buttane Mayor P.O. Box 97 Richfield, Idaho 83349 (208) 487-2754 (208) 487-2756 fax
Facility Contact Mailing Address Phone	Jack Riley, Facility Operator P.O. Box 97 Richfield, Idaho 83349 (208) 487-2754
Facility Consultant Mailing Address Phone	JUB-Engineers, Inc. 115 Northstar Avenue Twin Falls, Idaho 83301 (208) 733-2414

D. Site Specific Permit Conditions

1. The Permittee is allowed to apply wastewater and treat it on a land application site as prescribed in the table below and in accordance with all other applicable permit conditions and schedules.

Category	Permit Limits and Conditions
Type of Wastewater	Municipal Wastewater
Application Site Area	3.5 acres, see site map in Appendix
Application Season	Growing season only, April 1 through October 31
Growing Season Maximum Wastewater Hydraulic Loading Rate	Existing 3.5 acre site, 5.53 million gallons per year No Ponding or runoff is allowed.
COD Loading Rate, daily average during application season, lbs/acre-day	50 lbs/acre-day; Calculation should be based on the allowable application season of 214 days, April 1 through October 31
Ground Water Quality	Ground water quality shall be in compliance with the ground water quality rule (GWQR, IDAPA 58.01.11)
Maximum Nitrogen Loading Rate, lbs/acre-yr (all sources including supplemental fertilizers)	Up to 125% of typical crop uptake
Phosphorous Loading Rate, lbs/acre-yr (all sources including supplemental fertilizers)	Up to 125% of typical crop uptake
Construction Plans	Prior to construction of all wastewater facilities, detailed plans and specifications shall be reviewed and approved by the DEQ. Within 30 days of completion of construction, the permittee shall submit as-built plans for review and approval.
Grazing	Grazing is allowed only in conformance with DEQ approved grazing management plan.
Allowable crops	Crops grown for human consumption are not allowed.
Posting and Fencing	Chain link fencing and warning signs are required around the treatment facility. Signs should read "Wastewater Treatment Facility – Keep Out" or equivalent.

Buffer Zone Distances (based on furrow irrigation)	Disinfection Level* (total coliform)	Distance to Public Access	Distances to Inhabited Dwellings	Distance to streams	Distance to private water sources	Distance to public water sources	Single sample maximum total coliform level
	2.2 /100 ml	0 feet	50 feet	50 feet	500	1000	23/100 ml
	23/100 ml	0 feet	50 feet	50 feet	500	1000	240/100ml
	230/100ml	50 feet	300 feet	50 feet	500	1000	2400/100ml

*Compliance determination method for disinfection requirements is as follows:

- For determining compliance with the 2.2 / 100 ml disinfection level, the median value of the last five (5) results must not exceed 2.2 / 100 ml. In addition, no single sample value shall exceed 23 / 100 ml.
- For determining compliance with the 23 / 100 ml disinfection level, the median value of the last five (5) results must not exceed 23 / 100 ml. In addition, no single sample value shall exceed 240 / 100 ml.
- For determining compliance with the 230 / 100 ml disinfection level, the median value of the last three (3) results must not exceed 230 / 100 ml. In addition, no single sample value shall exceed 2400 / 100 ml.

E. Monitoring Requirements

1. The permittee shall monitor the operation and efficiency of all treatment facilities. The permittee shall monitor and measure parameters as stated in the Facility Sampling Schedule in this section. Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.
2. Monitoring locations are described in Appendix 2. Environmental Monitoring Serial Numbers.
3. Monitoring is required at the frequency shown in the table below if wastewater is applied anytime during the time period shown.
4. Appropriate analytical methods, as given in the *DEQ Handbook for Land Application of Municipal and Industrial Wastewater, April 1996*, or as approved by the Idaho Department of Environmental Quality (hereinafter referred to as the Department), shall be employed. A description of approved sample collection methods, appropriate analytical methods, and QA/QC procedures shall be included in the Operation and Maintenance Manual.
5. Five (5) soil sample locations shall be selected for each soil management unit. Three (3) soil samples shall be collected at each location. One at 0-12 inches, one at 12-24 inches, and one at 24-36 inches. The soil samples collected at each depth shall be composited to yield three (3) samples for analysis for each management unit.
6. Ground water monitoring wells shall be purged a minimum of three (3) casing volumes prior to obtaining a sample of ground water. The static water level shall be measured prior to pumping or sampling the ground water.
7. Wastewater sampling shall be as follows; 24-hour composite samples having four (4) aliquots evenly distributed over time shall be taken of the wastewater to be land applied.

LA-000048-02	City of Richfield	Permit Date May 30, 2002	Page 6 of 14
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Facility Monitoring Schedule

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Daily During land application season	Flowmeter	Wastewater to land application	Total Gallons/day to each Hydraulic Management Unit (HMU)
Monthly during land application season	Irrigation pump effluent	Grab samples of wastewater	Total Kjeldahl nitrogen, Nitrate+Nitrite-nitrogen, Total Dissolved Solids, Volatile Dissolved Solids, pH, Chemical Oxygen Demand (COD), Total Phosphorous, Total Coliform
Twice per year (April and October)	Ground Water Monitoring Wells GW-004801, GW-004802, GW-004803, GW-004804, GW-004805, GW-004806*	As per the Groundwater Monitoring and Sample Handling Standard Procedures Section in updated Operation and Maintenance Manual (O&M Manual)	Nitrate Nitrogen, TDS, Chloride, Total Phosphorous, Total Iron, Total Manganese, Static Water Level
Annually Spring and Fall	Land Application Site Soils	Composite soil samples taken in the spring prior to crop growth and in the fall	Electrical Conductivity, Total Phosphorous (plant available Olsen Method), Nitrate Nitrogen, Ammonia Nitrogen
First and last year of the permit	Land Application Site Soils	Composite soil samples taken in the spring prior to crop growth and in the fall	Sodium Absorption Ratio, DTPA-Fe, DTPA-Mn
Annually	Each Hydraulic Management Unit (HMU)	Crop Yield Calculation and Crop Type	Tons/acre, lbs/acre, bushels/acre
	Each Hydraulic Management Unit (HMU)	COD Loading Calculation	COD applied in lbs/ac/yr
	Each Hydraulic Management Unit (HMU)	Total nitrogen loading from fertilizer application	Nitrogen applied in lbs/ac/yr

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
	Each Hydraulic Management Unit (HMU)	Total nitrogen loading calculation from wastewater	Nitrogen applied in lbs/ac/yr
	Each Hydraulic Management Unit (HMU)	Total Phosphorous loading from fertilizer application	Phosphorous applied in lbs/ac/yr
	Each Hydraulic Management Unit (HMU)	Total Phosphorous applied from wastewater	Phosphorous applied in lbs/ac/yr
	Each Hydraulic Management Unit (HMU)	Non-volatile Dissolved Solids (NVDS) loading rate (NVDS=TDS-VDS)	NVDS applied in lbs/ac/yr

The reporting of monitoring results is described in Section G - Reporting Requirements.

* - Compliance monitoring points will be re-evaluated after completion of Compliance Schedule F, Item CA-048-02.

F. Compliance Schedule For Required Activities

The Activities in the following table shall be completed on or before the Completion Date unless modified by the Department in writing.

Compliance Activity Number Completion Date	Compliance Activity Description
CA-048-01 One year after permit issuance <i>OK</i>	An updated Operation and Maintenance Manual (O&M Manual) shall be submitted to the Department for review and approval, incorporating the requirements of this permit. Upon approval, the O&M Manual shall be incorporated by reference into this permit and shall be enforceable as a part of this permit. The O&M Manual shall be an operator guide for actual day to day operations to meet permit requirements.
CA-048-02 Two years after permit issuance <i>working</i>	The permittee shall conduct an analysis to determine the flow direction of the uppermost ground water in the land application area. The methodology to be used and the sampling methods to determine ground water flow direction shall be submitted to the Department for review and approval prior to implementation. This plan shall be submitted within six months of the permit issuance and the analysis completed within two years after permit issuance.
CA-048-03 One year after permit issuance <i>OK</i>	Determine the depth to the basalt layer at the wastewater land application site.
CA-048-04 Two years after permit issuance	Conduct seepage testing in accordance with the DEQ uniform seepage test procedures (DEQ program guidance No. MFC-8) or a method approved by the DEQ. This applies to all wastewater storage or conveyance structures at the treatment facility or at the land application site. The leakage performance standard set in the DEQ guidance No. MFC-8 is specified as 0.125 inches/day or less. If a structure does not meet these seepage requirements, the permittee shall submit a plan and schedule, for DEQ review and approval, to repair the structure.

The reporting of Compliance Activities is described in Section G. Reporting Requirements.

G. Reporting Requirements

1. The permittee shall submit an Annual Wastewater-Land Application Site Performance Report ("Annual Report") prepared by a competent environmental professional no later than February 28 of each year which shall cover land application related activities from the previous year January 1 through December 31. The Annual Report shall include results for the monitoring required in *Section E. Monitoring Requirements*, status of compliance activities, and an interpretative discussion of monitoring data (ground water, vadose zone, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility.

LA-000048-02	City of Richfield	Permit Date May 30, 2002	Page 10 of 14
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H. Standard Permit Conditions: Procedures and Reporting

1. The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the permittee to comply with all conditions of the permit or the Wastewater-Land Application Permit Regulations, in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.
2. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site unless permission has been obtained from the Department authorizing a discharge into the waters of the State as stated in IDAPA 58.01.02.600.02.
3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03. In order to prevent public health hazards and nuisance conditions the permittee shall:
 - a. Apply wastewater as evenly as practicable to the treatment area;
 - b. prevent organic solids (contained in the wastewater) from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects; and
 - c. prevent wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.
4. As a result of the land application of wastewater, ground water of the state must not contain contaminants exceeding those values as referenced under IDAPA 58.01.01.200a, b, and c of the Ground Water Quality Rule, unless otherwise specified in this permit.
5. The permittee shall:
 - a. Manage the wastewater land application treatment site as an agronomic operation where vegetative cover is grown and harvested or grazed to utilize the nutrients and minerals in the wastewater; and
 - b. not hydraulically overload any particular areas of the wastewater land application treatment site.
6. All waste solids, including dredgings and sludges, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate therefrom, into the waters of the state such that health hazards and nuisance conditions are not created; and to prevent impacts on designated beneficial uses of the ground water and surface water. The permittee's management of waste solids shall be governed by the terms of the Department approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.
7. If the permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Waste Water Land Application Permit Regulations.
8. The permittee shall allow the Director of the Idaho Department of Environmental Quality or the

LA-000048-02	City of Richfield	Permit Date May 30, 2002	Page 11 of 14
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Directors designee (hereinafter referred to as the Director), consistent with Title 39, Chapter 1, Idaho Code, to:

- a. Enter the permitted facility;
 - b. Inspect any records that must be kept under the conditions of the permit;
 - c. Inspect any facility, equipment, practice, or operation permitted or required by the permit; and
 - d. Sample or monitors for the purpose of assuring permit compliance, any substance or any parameter at the facility.
9. The permittee shall report to the Director under the circumstances and in the manner specified in this section:
- a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
 - b. In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.
 - c. Orally within twenty-four (24) hours from the time the permittee became aware of any non-compliance which may endanger the public health or the environment at the telephone numbers provided by the Director:

DEQ Twin Falls Regional Office (208) 736-2190
Emergency 24 Hour Number 1-800-632-8000
 - d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any non-compliance unless extended by the Department. This report shall contain:
 - i. A description of the non-compliance and its cause;
 - ii. The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
 - iii. Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.
 - e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.
10. The permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit non-compliance.
11. The permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. If problems are present, coordinate with the Idaho Department of Agriculture or the local County authority regarding their requirements for noxious weed control. Also address these control operations in an update to the Operations and Maintenance Manual.

LA-000048-02	City of Richfield	Permit Date May 30, 2002	Page 12 of 14
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I. Standard Permit Conditions: Modifications, Violation, and Revocation

1. The permittee shall furnish to the Director within a reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.
2. Both minor and major modifications may be made to this permit as stated in IDAPA 16.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the Department.
3. Whenever a facility expansion, production increase or process modification is anticipated, which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit. Or if it is determined by the Department that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either a major or minor permit modification must be submitted together with necessary reports, plans and specifications for the proposed changes. No such facility expansion, production increase or process modification, which may change the conditions of this permit, shall be made until plans have been reviewed and approved by the Department and a new permit or permit modification has been issued.
4. Permits shall be transferable to a new owner or operator provided that the permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.
5. Any person violating any provision of the Waste Water Land Application Permit Regulations, or any permit or order issued thereunder shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) or one thousand dollars (\$1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor.
6. The Director may revoke a permit if the permittee violates any permit condition or the Wastewater Land Application Permit Regulations.
7. Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within twenty (20) days of receipt of the notice by the permittee, unless within that time the permittee request an administrative hearing in writing to the Director.
8. The Director shall notify the permittee in writing of any revocation hearing at least twenty (20) days prior to the date set for such hearing. The hearing shall be conducted in accordance with Title 67, Chapter 52, Idaho Code.
9. If, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing the Director shall provide the permittee a revocation hearing and prior notice thereof. Such hearings shall be conducted in accordance with Title 67, Chapter 52, Idaho Code.
10. The provisions of this permit are severable and if a provision or its application is

LA-000048-02	City of Richfield	Permit Date May 30, 2002	Page 13 of 14
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declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.

11. The permittee shall notify the Department at least six (6) months prior to permanently removing any permitted land application site from service. Prior to commencing site closure activities, the permittee shall:
 - a. Participate in a pre-site closure meeting with the Department;
 - b. Develop a site closure plan that identifies specific closure or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and
 - c. Submit the completed site closure plan to the Department for review and approval within forty-five (45) days of the pre-site closure meeting. The permittee must complete the Department approved site closure plan.
 - d. Agree in writing to complete the Department approved site closure plan.
12. The permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment, resulting from permit non-compliance.

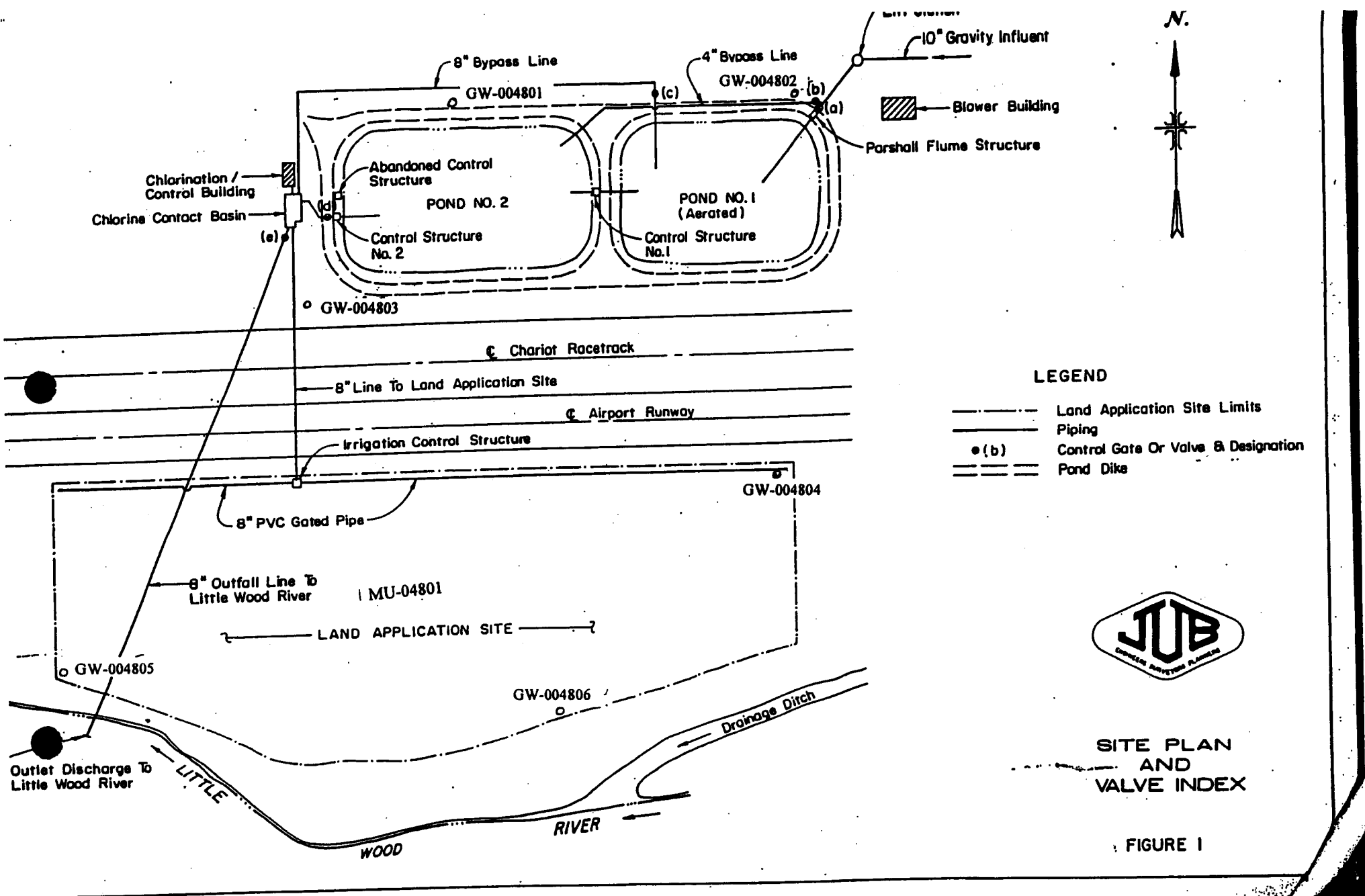
APPENDIX 1

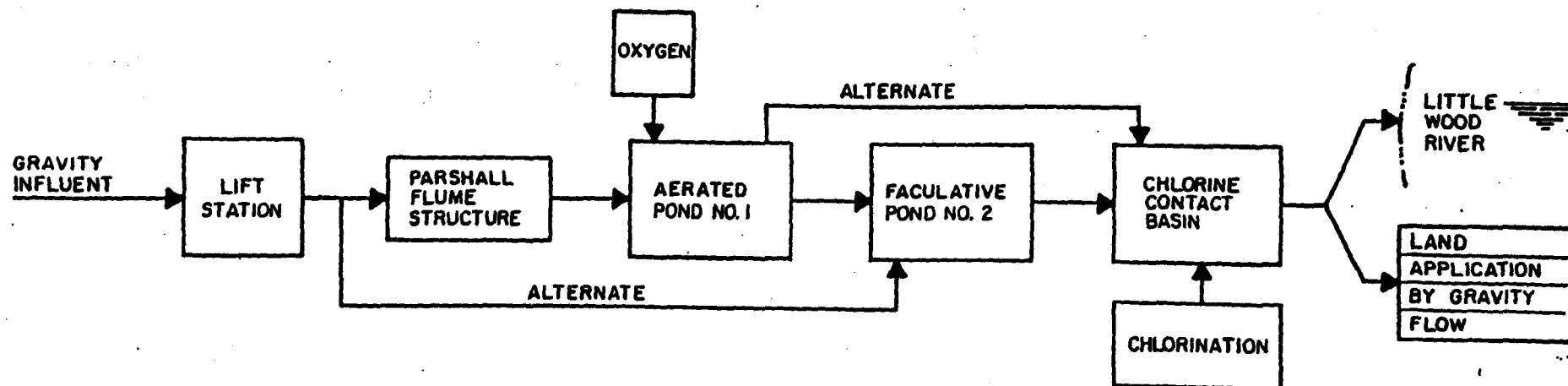
City of Richfield

Wastewater Land Application Permit

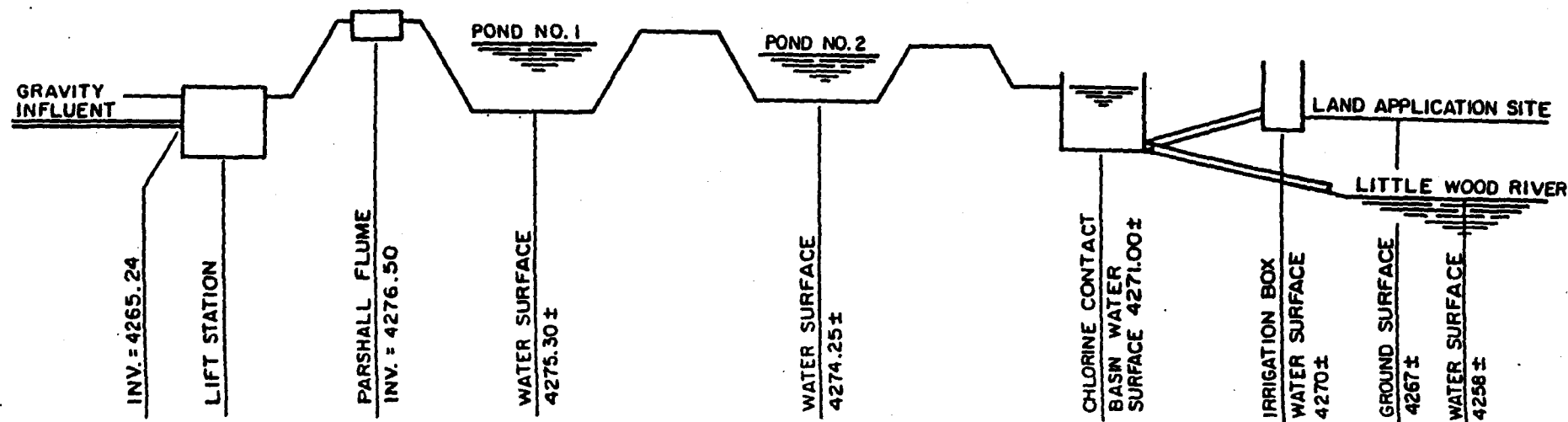
LA-000048-02

SITE MAPS





FLOW DIAGRAM



HYDRAULIC PROFILE

FIGURE 2



APPENDIX 2

City of Richfield

Wastewater Land Application Permit

LA-000048-02

**ENVIRONMENTAL MONITORING
SERIAL NUMBERS**

**APPENDIX 2
ENVIRONMENTAL MONITORING LOCATIONS**

Wastewater Sampling Point(s)

Serial #	Description
WW-04801	Effluent to land application system

Hydraulic Management Unit(s)

Serial #	HMU Title	Acres
MU-04801	Gated pipe gravity irrigation site	3.5

Soil Management Unit(s)

Serial #	Description	Acres
SU-04801	Gated pipe gravity irrigation site	3.5

Ground Water Sampling Point(s)

Serial #	Description	Position	Compliance Point
GW-004801	Well #1	See note 1	See note 1
GW-004802	Well #2	See note 1	See note 1
GW-004803	Well #3	See note 1	See note 1
GW-004804	Well #4	See note 1	See note 1
GW-004805	Well #5	See note 1	See note 1
GW-004806	Well #6	See note 1	See note 1

NOTE 1: To be determined after compliance activity CA-048-02 is completed (Section F)